

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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IN THE PATENT APPLICATION OF:

THOMAS G. KRAJEWSKI AND  
JEFFREY J. DEGROOT

U.S. SERIAL NO: UNKNOWN

GROUP: UNKNOWN

FILED: CONCURRENTLY

EXAMINER: UNKNOWN

FOR: ENHANCED TOUCH-SCREEN DISPLAY  
SYSTEM

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La Crosse, Wisconsin  
October 19, 2001

INFORMATION DISCLOSURE STATEMENT

Assistant Commissioner for Patents

Washington, D.C. 20231

Dear Sir:

Applicant encloses copies of U.S. Patent 6,246,394 to Kalthoff et al.; U.S. Patent 6,016,140 to Blouin et al.; U.S. Patent 5,751,276 to Shih; U.S. Patent 5,241,139 to Gunzl et al. and U.S. Patent 4,145,748 to Eichelberger et al. The relevance of these patents is discussed in the Background section of the application.

The following patents are also enclosed and discussed.

U.S. Patent 5,877,458 to Flowers is directed to a surface position location system and method and is not considered particularly relevant to the present invention or touch screens.

U.S. Patent 5,717,321 to Kerth et al. is directed to drive current calibration for an analog resistive touch screen. The patent proposes (a) converting a digital control valve to a current supplied to the load resistance to thereby produce a voltage across the load

resistance, (b) comparing the voltage across the load resistance to the desired voltage to produce a comparison signal, and (c) adjusting the DC control value in response to the comparison signal so that the voltage across the load resistance becomes substantially equal to the desired voltage.

U.S. Patent 5,644,308 to Kerth et al. is directed to an algorithmic converter.

U.S. Patent 5,543,588 to Bisset et al. shows a touch screen driven handheld computing device.

U.S. Patent 5,283,559 to Kalendra et al. is directed to automatic calibration of a capacitive touch screen, as opposed to an analog resistive touch screen.

The following non-patent information is enclosed.

A glossy from the Bergquist Company entitled "RTS™ Resistive Touch System" is enclosed where, under the main heading "Touch Screen Features" and the secondary heading "Five-Wire Advantages", simple 2 point calibration versus up to 25 points for others is touted.

An article entitled "Human Input Devices Based on Resistive Touch Screen Sensors" is attached providing general background material. The article is from ECN Magazines, May 15, 2001 Issue, pages 44 and 45.

A second article from ECN's June 2001 Issue entitled "Resistive Touch Screen Controller ADCs - Theory of Operation & Application Challenges" is attached also providing general background information.

The foregoing are included to fully comply with applicant's duty of disclosure and are not considered to be particularly relevant to the invention as claimed.

Respectfully Submitted,



William O'Driscoll  
Registration No. 33,294

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|   |   |    |   | Application Number       |                         |
|   |   |    |   | Filing Date              |                         |
|   |   |    |   | First Named Inventor     | Krajewski, T. G. et al. |
|   |   |    |   | Group Art Unit           |                         |
|   |   |    |   | Examiner Name            |                         |
|   |   |    |   | Attorney Docket Number   | D-2778/WOD              |
| Sheet   | 1 | of | 2 |                          |                         |

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|-----------------------|--------------------|
| Examiner<br>Signature | Date<br>Considered |
|-----------------------|--------------------|

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Unique citation designation number. <sup>2</sup> See attached Kinds of U.S. Patent Documents. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

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PTO/SB/08B (08-00)

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|   |             | <b>Application Number</b>                           |  |
|   |             | <b>Filing Date</b>                                  |  |
|   |             | <b>First Named Inventor</b> Krajewski, T. G. et al. |  |
|   |             | <b>Group Art Unit</b>                               |  |
|   |             | <b>Examiner Name</b>                                |  |
| <b>Sheet</b> 2  | <b>of</b> 2 | <b>Attorney Docket Number</b> D-2778/WOD            |  |

| <b>OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS</b> |                                 |  |                      |
|--|---------------------------------|--|----------------------|
| <b>Examiner<br/>Initials<sup>1</sup></b>                 | <b>Cite<br/>No.<sup>1</sup></b> | <b>Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.</b> | <b>T<sup>2</sup></b> |
|  |                                 | THE BERGQUIST COMPANY, "RTS <sup>TM</sup> Resistive Touch System" brochure,  |                      |
|  |                                 | ECN, "Human Input Devices Based on Resistive Touch Screen Sensors", May 15, 2001   |                      |
|  |                                 | ECN, "Resistive Touchscreen Controller ADCs - Theory of Operation & Application Challenges", June 2001   |                      |
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| <b>Examiner<br/>Signature</b> |  | <b>Date<br/>Considered</b> |  |
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